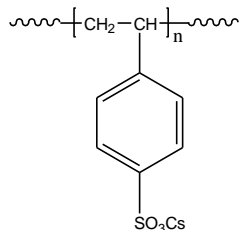


Sample Name:
Poly(styrene sulfonic acid Cesium salt)

Sample #: **P2322-SSO3Cs**

Structure:

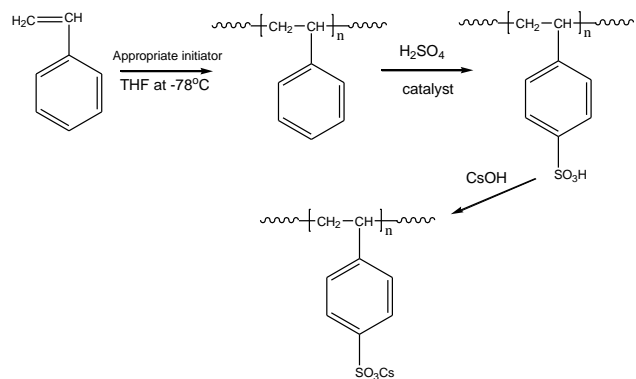


Composition:

$M_n \times 10^3$	PDI
10.0	1.06

Synthesis Procedure:

Poly(styrene sulfonic acid cesium salt) is obtained by the anionic polymerization of styrene followed by sulfonation of the polymer under acidic conditions. The reaction scheme is illustrated below:

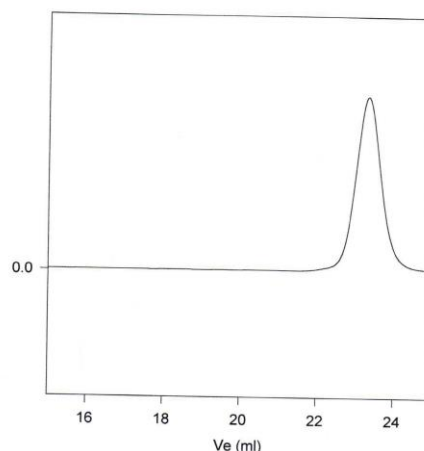


Characterization:

The molecular weight and polydispersity index (PDI) of poly(styrene sulfonic acid cesium salt) are obtained by size exclusion chromatography. The degree of sulfonation is determined by acid/base titration and by elemental analysis.

SEC of Homopolymer:

**P-2277St Precursor for the sulfonation
P2322-SSCs**



Size exclusion chromatography of polystyrene:

$M_n=3300$, $M_w=3500$, $PI=1.06$

After sulfonation and neutralization with CsOH

M_n : 10000 M_w : 10600 M_w/M_n 1.06 Degree of sulfonation >95%